

**IN THE CLAIMS**

1. (Previously presented) A method comprising:

identifying available data packets for transmission, the available data packets being of a plurality of data packet types corresponding to different numbers of time-slots required for data packet transmission;

determining how many time-slots are available for the transmission;

upon determining the number of the available time slots, identifying a subset of the plurality of data packet types that fit into the available time-slots and meet a minimum transfer length requirement;

determining whether any of the identified data packet types are capable of transmitting an entire required data length;

if any of the identified data packet types are capable of transmitting the entire required data length, choosing for the transmission, from the data packet types capable of transmitting the entire required data length, a data packet type capable of transmitting most data in a shortest time; and

if none of the identified data packets are capable of transmitting the required data length, choosing for the transmission, from the identified data packet types, a data packet type capable of transmitting most data in a shortest time.

2-4. (Canceled)

5. (Previously presented) The method of claim 1 wherein the identified data packet types not only fit into the available time-slots and meet the minimum transfer length

requirement but are also least prone to a transmission error.

6. (Previously presented) The method of claim 1 wherein the identified data packet types not only fit into the available time-slots and meet the minimum transfer length requirement but can also be transmitted in a transmitter logic low power mode.

7. (Previously presented) A computer-readable medium having stored thereon a set of instructions, which when executed by a processor, cause the processor to perform a method comprising:

- identifying available data packets for transmission, the available data packets being of a plurality of data packet types corresponding to different numbers of time-slots required for data packet transmission;

- determining how many time-slots are available for the transmission;

- upon determining the number of the available time slots, identifying a subset of the plurality of data packet types that fit into the available time-slots and meet a minimum transfer length requirement;

- determining whether any of the identified data packet types are capable of transmitting an entire required data length;

- if any of the identified data packet types are capable of transmitting the entire required data length, choosing for the transmission, from the data packet types capable of transmitting the entire required data length, a data packet type capable of transmitting most data in a shortest time; and

- if none of the identified data packets are capable of transmitting the required data length, choosing for the transmission, from the identified data packet types, a data packet

type capable of transmitting most data in a shortest time.

8-10. Canceled.

11. (Currently amended) The computer-readable medium of claim 710 wherein the identified data packet types not only fit into the available time-slots and meet the minimum transfer length requirement but are also least prone to a transmission error.

12. (Currently amended) The computer-readable medium of claim 710 wherein the identified data packet types not only fit into the available time-slots and meet the minimum transfer length requirement but can also be transmitted in a transmitter logic low power mode.

13. (Currently amended) A computing system comprising:

a memory to store instructions; and

a processor, coupled to the memory, the processor executing the instructions that cause the processor to  
~~a first programmable module to:~~

identify available data packets for transmission, the available data packets being of a plurality of data packet types corresponding to different numbers of time-slots required for data packet transmission;

~~a second programmable module to determine how many time-slots are available for the transmission;~~

~~a third programmable module to identify, upon determining the number of the available time slots, a subset of the plurality of data packet types that fit into the available~~

time-slots and meet a minimum transfer length requirement; and

~~a fourth programmable module to determine whether any of the identified data packet types are capable of transmitting an entire required data length,~~

if any of the identified data packet types are capable of transmitting the entire required data length, to choose for the transmission, from the data packet types capable of transmitting the entire required data length, a data packet type capable of transmitting most data in a shortest time, and

if none of the identified data packets are capable of transmitting the required data length, to choose for the transmission, from the identified data packet types, a data packet type capable of transmitting most data in a shortest time.

14. (Canceled)

15. (Previously presented) The computing system of claim 13 wherein the identified data packet types not only fit into the available time-slots and meet the minimum transfer length requirement but are also least prone to a transmission error.

16. (Previously presented) The computing system of claim 13 wherein the identified data packet types not only fit into the available time-slots and meet the minimum transfer length requirement but can also be transmitted in a transmitter logic low power mode.